



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER OF PATENTS AND TRADEMARKS Washington, D.C. 20231 www.uspto.gov

APPLICATION N	O. F	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.	
09/605,325		06/28/2000	Michael T. Moore	0325.00372	6269	
21363	7590	11/22/2002				
	CHRISTOPHER P. MAIORANA, P.C.				EXAMINER	
24025 GREATER MACK SUITE 200				NGUYEN, MIKE		
ST. CLAIR SHORES, MI 48080			ART UNIT	PAPER NUMBER		
				2182		
				DATE MAILED: 11/22/2002	<u>!</u>	

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 07-01)

8



## Office Action Summary

۱pp	lica	tion	No.
-----	------	------	-----

Applicant(s)

MOORE, MICHAEL T.

Examiner

09/605,325

Art Unit

Mike Nguyen 2182 -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

# A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM

- THE MAILING DATE OF THIS COMMUNICATION. Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
- after SIX (6) MONTHS from the mailing date of this communication. If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any

Status	
--------	--

**Period for Reply** 

Status	, patent term as justine in 100 0, 0, 11 1110 1(e).		
1)	Responsive to communication(s)	filed on <u>25 September</u>	<u>r 2000</u> .
2a) <u></u> □	This action is FINAL.	2b)⊠ This action is	s non-final.
3)			pt for formal matters, prosecution as to the merits is Quayle, 1935 C.D. 11, 453 O.G. 213.
Dispositio	on of Claims		•
4) 🖾	Claim(s) 1-20 is/are pending in the	e application.	
4	a) Of the above claim(s) is.	/are withdrawn from co	onsideration.
5) 🗌	Claim(s) is/are allowed.		
6)⊠	Claim(s) <u>1-20</u> is/are rejected.		
7)	Claim(s) is/are objected to.		
•	Claim(s) are subject to rest on Papers	riction and/or election r	requirement.
9)∐ T	he specification is objected to by t	he Examiner.	
10)∐ T	he drawing(s) filed on is/are	e: a)□ accepted or b)□	objected to by the Examiner.
	Applicant may not request that any o	bjection to the drawing(s)	s) be held in abeyance. See 37 CFR 1.85(a).
11)[] T	he proposed drawing correction file	led on is: a)□ a	approved b) disapproved by the Examiner.
	If approved, corrected drawings are	required in reply to this Of	Office action.
12) 🗌 T	he oath or declaration is objected	to by the Examiner.	
Priority u	nder 35 U.S.C. §§ 119 and 120		
13) 🗌 .	Acknowledgment is made of a clai	m for foreign priority ur	nder 35 U.S.C. § 119(a)-(d) or (f).
a)[	☐ All b)☐ Some * c)☐ None of	:	
	1. Certified copies of the priorit	ly documents have bee	en received.
;	2. Certified copies of the priorit	ty documents have bee	en received in Application No
	application from the Inte	rnational Bureau (PCT	, ,,
	ee the attached detailed Office act		·
•	_		under 35 U.S.C. § 119(e) (to a provisional application).
	☐ The translation of the foreign I cknowledgment is made of a claim		pplication has been received. under 35 U.S.C. §§ 120 and/or 121.
Attachment	(s)		
2) 🔲 Notice	e of References Cited (PTO-892) e of Draftsperson's Patent Drawing Review nation Disclosure Statement(s) (PTO-1449)		4) Interview Summary (PTO-413) Paper No(s) 5) Notice of Informal Patent Application (PTO-152) 6) Other:

#### **DETAILED ACTION**

1. Claims 1-20 are pending for the examination.

### Claim Objections

The

2. Claims 9, 16 are objected to because of the following informalities: missedspelling a "programable" (see claims 9, 16). Appropriate correction is required.

## Claim Rejections - 35 USC § 103

- 3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
  - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 4. Claims 1-6, and 9-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Deming et al. (U.S. Pat. No. 5,864,486) in view of Wang et al. (U.S. Pat. No. 6,448,820 B1).
- 5. As to claim 1, Deming teaches an apparatus comprising:
  a wireless transceiver coupled to a programmable logic circuit (see figure 2 elements 20, 30, 40, wherein the elements 20, 30 are wireless communications and coupled to the insystem programmable logic device element 40).

Although the apparatus taught by Deming shows substantial features of the claimed invention (discussed above), it fails to explicitly teach: a programmable logic circuit wherein said programmable logic circuit comprises a programmable logic device, a processor, and a memory circuit in a single integrated circuit (IC) package. Wang; however, teaches a programmable logic circuit wherein said programmable logic circuit

comprises a programmable logic device, a processor, and a memory circuit in a single integrated circuit (IC) package (see figure 1 elements 121, 101, 105 and column 3 lines 37-41). Given the teaching of Wang, a person having ordinary skill in the art would have readily recognized the desirability and advantages of modifying Deming by employing the well-known or conventional feature of the apparatus, such as taught by Wang, in order to provide reducing component count, printed circuit board area requirements, and die area of the programmable logic device.

- As to claim 2, Deming teaches the apparatus according to claim 1, wherein said 6. single integrated circuit package contains one or more integrated circuit dies (see figure 4 and column 5 lines 11-14).
- As to claim 3, Deming teaches the apparatus according to claim 1, wherein said 7. integrated circuit comprises a JEDEC standard integrated circuit package (see column 1 lines 26-35).
- As to claim 4, Deming teaches the apparatus according to claim 1, wherein said 8. wireless transceiver is contained within said package (see figure 2 and column 4 lines 2-9).
- 9. As to claim 5, Deming teaches the apparatus according to claim 1, wherein said wireless transceiver communicates using either electromagnetic or ultrasonic waves (see column 2 lines 53-59).
- As to claim 6, Deming teaches the apparatus according to claim 5, wherein said 10. electromagnetic waves comprise radio signals or infrared light (see column 8 lines 39-60).

- 11. As to claim 9, Deming fails to explicitly to teach: the apparatus according to claim 1, wherein said processor and said programmable logic device are implemented on a single die. Wang; however, teaches the apparatus, wherein said processor and said programmable logic device are implemented on a single die (see figure 1 elements 101, 121 and column 3 lines 37-39). Given the teaching of Wang, a person having ordinary skill in the art would have readily recognized the desirability and advantages of modifying Deming by employing the well-known or conventional feature of the apparatus, such as taught by Wang, in order to provide reducing component count, printed circuit board area requirements, and die area of the programmable logic circuit.
- 12. As to claim 10, Deming fail to explicitly to teach: the apparatus according to claim 1, wherein said processor is selected from the group consisting of a microprocessor, a micro-controller or other processor, a digital signal processor, and instructions stored in said memory circuit for configuring said programmable logic circuit as a processor. Wang, however, teaches the apparatus, wherein said processor is selected from the group consisting of a microprocessor, a micro-controller or other processor, a digital signal processor, and instructions stored in said memory circuit for configuring said programmable logic circuit as a processor (see column 3 lines 49-56). Given the teaching of Wang, a person having ordinary skill in the art would have readily recognized the desirability and advantages of modifying Deming by employing the well-known or conventional feature of the apparatus, such as taught by Wang, in order to provide controlled logic of the programmable logic circuit.
- 13. As to claim 11, Deming fails explicitly to teach: the apparatus according to claim 10, wherein said instructions configure said programmable logic device as a device

selected from the group consisting of a microprocessor, a micro-controller, and a digital signal processor. Wang; however, teaches the apparatus, wherein said instructions configure said programmable logic device as a device selected from the group consisting of a microprocessor, a micro-controller, and a digital signal processor (see column 3 lines 49-56). Given the teaching of Wang, a person having ordinary skill in the art would have readily recognized the desirability and advantages of modifying Deming by employing the well-known or conventional feature of the apparatus, such as taught by Wang, in order to provide controlled logic of the programmable logic circuit.

- 14. As to claim 12, Deming fails to explicitly to teach: the apparatus according to claim 1, wherein said memory circuit comprises one or more non-volatile memory elements. Wang; however, teaches the apparatus, wherein said memory circuit comprises one or more non-volatile memory elements (see figure 1 element 105 and column 3 lines 61-65). Given the teaching of Wang, a person having ordinary skill in the art would have readily recognized the desirability and advantages of modifying Deming by employing the well-known or conventional feature of the apparatus, such as taught by Wang, in order to provide a protection of removed programs in the memory circuit.
- 15. As to claim 13, Deming teaches the apparatus according to claim 1, wherein said programmable logic device comprises one or more memory elements (see column3 lines 21-27).
- As to claim 14, Deming teaches the apparatus according to claim 13, wherein said 16. memory elements are non-volatile (see column 3 lines 21-27).
- 17. Claim 15 is of similar scope as claim 1 and is therefore rejected under same rational.

Application/Control Numer: 09/605,325

Art Unit: 2182

Deming also teaches: (A) presenting programming signals to a wireless transceiver (see column 3 lines 43-48), and (B) programming a programmable logic circuit in response to said programming signals (see column 3 lines 49-52).

- 18. Claim 16 is of similar scope as claim 4 and is therefore rejected under same rationale.
- Claim 17 is of similar scope as claims 10, 15 and is therefore rejected under same 19. rationale.
- 20. Claims 18-19 are of similar scope as claims 1, 4 and are therefore rejected under same rationale.
- 21. Claims 7-8, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Deming and Wang as applied claims 1, and 18 above, and further in view of Philip S. Esnouf (U.S. Pat. No 5,364,108).
- As to claim 7, the combination of Deming and Wang fails to explicitly teach: the 22. apparatus according to claim 1, wherein said wireless transceiver communicates through a device selected from the group consisting of an antenna, a light emitting/sensitive device, and an ultrasonic transducer. Esnouf; however, teaches the apparatus, wherein said wireless transceiver communicates through a device selected from the group consisting of an antenna, a light emitting/sensitive device, and an ultrasonic transducer (see figure 7 and column 11 lines 12-17 and column 13 lines 43-50). Given the teaching of Esnouf, a person having ordinary skill in the art would have readily recognized the desirability and advantages of modifying the combination of Deming and Wang by employing the well known or conventional feature of the apparatus, such as taught by Esnouf, in order to provide transforming signals.

- 23. As to claim 8, the combination of Deming and Wang fails to explicitly teach: The apparatus according to claim 7, wherein said light emitting/sensitive device comprises an infrared diode or other type or wavelength of light emitting/sensitive diode or transistor. Esnouf; however, teaches the apparatus, wherein said light emitting/sensitive device comprises an infrared diode or other type or wavelength of light emitting/sensitive diode or transistor (see figure 7 and column 11 lines 12-17). Given the teaching of Esnouf, a person having ordinary skill in the art would have readily recognized the desirability and advantages of modifying the combination of Deming and Wang by employing the well known or conventional feature of the apparatus, such as taught by Esnouf, in order to provide transforming signals.
- As to claim 20, the combination of Deming and Wang fails to explicitly teach: the apparatus according to claim 18, further comprising a transducer coupled to said wireless transceiver. Esnouf; however, teaches the apparatus, further comprising a transducer coupled to said wireless transceiver (see figure 7 and column 13 lines 43-50). Given the teaching of Esnouf, a person having ordinary skill in the art would have readily recognized the desirability and advantages of modifying the combination of Deming and Wang by employing the well known or conventional feature of the apparatus, such as taught by Esnouf, in order to provide transforming signals.

#### Conclusion

25. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mike Nguyen whose telephone number is (703) 305-5040 or e-mail is mike.nguyen@uspto.gov. The examiner can normally be reached on Monday through Friday from 8:00 AM to 5:00 PM.

The appropriate fax number for the organization where this application or proceeding is assigned is (703) 746-7240.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Jeffrey Gaffin, can be reached on (703) 308-3301.

Any inquiry of a general nature or relating to the status of this application should be directed to the group receptionist whose telephone number is (703) 305-3900.

TECHNOLOGY CENTER 2100

Mike Nguyen Patent Examiner Group Art Unit 2182

11/15/2002